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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/916,168	07/26/2001	Atsushi Ishiwata	33587	7686

116 7590 07/15/2004
PEARNE & GORDON LLP
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EXAMINER

WOOD, WILLIAM H

ART UNIT PAPER NUMBER

2124

DATE MAILED: 07/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/916,168

Applicant(s)

ISHIWATA, ATSUSHI

Examiner

William H. Wood

Art Unit

2124

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 July 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 July 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 7/26/01.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claims 1-15 are pending and have been examined.

Priority

1. Acknowledgment is made of applicant's claim for foreign priority under 35

U.S.C. 119(a)-(d). **Information Disclosure Statement**

2. The information disclosure statement (IDS) submitted on 26 July 2001 was considered by the examiner. **Specification**

3. The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use. A "Field of the Invention" section was not included in Applicant's specification of 26 July 2001.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC (See 37 CFR 1.52(e)(5) and MPEP 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text are permitted to be submitted on compact discs.) or REFERENCE TO A "MICROFICHE APPENDIX" (See MPEP § 608.05(a). "Microfiche Appendices" were accepted by the Office until March 1, 2001.)
- (e) BACKGROUND OF THE INVENTION.
 - (1) Field of the Invention.
 - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (f) BRIEF SUMMARY OF THE INVENTION.
- (g) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).

Art Unit: 2124

- (h) DETAILED DESCRIPTION OF THE INVENTION.
- (i) CLAIM OR CLAIMS (commencing on a separate sheet).
- (j) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (k) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

Claim Objections

4. Claims 4-12 are objected to because of the following informalities: "inking" instead of "linking" in last paragraph of independent claims. Appropriate correction is required.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Admitted Prior Art, found in Applicant's specification on pages 1-2.

Claim 1

APA disclosed an intermediate object linking method of linking a plurality of intermediate objects to form an executable object (*page 1, lines 12-18; page 2, lines 5-11*), comprising:

- ♦ an intermediate object linking order forming step which decides linking orders of the plurality of intermediate objects (*page 1, lines 12-18*);
- ♦ a linking processing step which executes linking processes of the plurality of intermediate objects based on the linking orders decided by the intermediate object linking order forming step to get an executable object (*page 1, lines 12-18*);
- ♦ a comparing step which compares program size of the executable objects obtained by the linking processing step with the program size of a executable objects stored in a storing section every time when the linking order is changed (*page 2, lines 5-11*);
- ♦ a storing step for storing the program size of the executable objects and the linking order obtained by the linking processing step in the storing section to update when the program size of the executable objects obtained by the linking processing step is smaller than the program size of the executable objects stored in the storing section at the comparing step (*page 2, lines 5-11*); and
- ♦ a repeating step for changing the linking orders by the intermediate object linking order forming step and executing repeatedly the linking processing step, the comparing step, and the storing step (*page 2, lines 5-11; interpreted as re-executing above steps*).

Claims 2 and 3

APA did not explicitly state an intermediate object linking method according to claim 1, wherein the intermediate object linking order forming step decides the linking orders by a permutation/genetic algorithm. Official Notice is taken that it was known at the time of invention to utilize permutation and/or genetic algorithms for processing a volume of information. It would have been obvious to one of ordinary skill in the art at the time of invention to implement the sorting/order determination of **APA** with permutation or genetic algorithms. This implementation would have been obvious because one of ordinary skill in the art would be motivated to provide known sorting/processing algorithms (and thus easily implemented) in order to efficiently prepare a new link order for the system of **APA**.

Claims 4-15

The limitations of claims 4-15 correspond to method claims 1-3 and as such are rejected in the same manner.

7. Claims 1-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Smaalders et al.** (USPN 5,790,865).

Art Unit: 2124

Claim 1

Smaalders disclosed an intermediate object linking method of linking a plurality of intermediate objects to form an executable object (*column 2, lines 51-60; column 12, lines 12-29*), comprising:

- ♦ an intermediate object linking order forming step which decides linking orders of the plurality of intermediate objects (*column 7, line 41 to column 12, line 8*);
- ♦ a linking processing step which executes linking processes of the plurality of intermediate objects based on the linking orders decided by the intermediate object linking order forming step to get an executable object (*column 12, lines 10-67*);
- ♦ a comparing step (*column 2, line 60 to column 3, line 12*);
- ♦ a storing step for (*column 2, line 60 to column 3, line 12*); and
- ♦ a repeating step for changing the linking orders by the intermediate object linking order forming step and executing repeatedly the linking processing step, the comparing step, and the storing step (*column 2, lines 57-60; interpreted as re-executing above steps*).

Smaalders did not explicitly state comparing executable size from iteration to iteration, saving the smallest. However, **Smaalders** demonstrated that it was known at the time of invention to work towards smaller code (*column 2, lines 40-42; column 13, lines 1-25*). It would have been obvious to one of ordinary skill in the art at the time of invention to implement the optimal linking system of **Smaalders** with simply comparing code size to produce the smallest code as suggested by **Smaalders'** own teaching. This

implementation would have been obvious because one of ordinary skill in the art would be motivated to reduce cache misses, which smaller code would do naturally (column 13, lines 1-25), furthermore this implementation would be technically easier to implement (just comparing output code and not execution timing of output code).

Claims 2 and 3

Smaalders did not explicitly state an intermediate object linking method according to claim 1, wherein the intermediate object linking order forming step decides the linking orders by a permutation/genetic algorithm. Official Notice is taken that it was known at the time of invention to utilize permutation and/or genetic algorithms for processing a volume of information. It would have been obvious to one of ordinary skill in the art at the time of invention to implement the sorting/order determination of **Smaalders** with permutation or genetic algorithms. This implementation would have been obvious because one of ordinary skill in the art would be motivated to provide known sorting/processing algorithms (and thus easily implemented) in order to efficiently prepare a new link order for the system of **Smaalders**.

Claims 4-15

The limitations of claims 4-15 correspond to method claims 1-3 and as such are rejected in the same manner.

Art Unit: 2124

Correspondence Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William H. Wood whose telephone number is (703)305-3305. The examiner can normally be reached 7:30am - 5:00pm Monday thru Thursday and 7:30am - 4:00pm every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kakali Chaki can be reached on (703)305-9662. The fax phone numbers for the organization where this application or proceeding is assigned are (703)746-7239 for regular communications and (703)746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)305-3900.

William H. Wood
July 9, 2004

Kakali Chaki
KAKALI CHAKI
SUPERVISORY PATENT EXAMINER
TECHNOLOGY DEVELOPMENT